

How Will Technology Transform the Work of Human Experts?*

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Richard Susskind – Daniel Susskind:

The Future of the Professions: How Technology Will Transform the Work of Human Experts

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The authors, Richard Susskind, a professor dealing with the field of the technological development of the legal profession and his son, Daniel Susskind, an economist, analyse on the basis of their professional experience how technological development is changing occupations/trades belonging to the scope of intellectual occupations requiring a degree, and called “profession” (such as legal occupations, physician, teacher, tax consultant, priest, architect, etc.), and the work of their practitioners.

One important starting point of the book is the definition, in order to distinguish those occupations/professions that belong to the category of “profession”, a concept not identified by a specific term in Hungarian language, to which I will refer in the subsequent part as occupations that require a degree, or professions in English. By profession they mean such occupations, usually offering a high degree of social appreciation and a safe financial background, that comply with the following four conditions: (i) the practitioners of these occupations have specialist knowledge in which theoretical qualification is only one element, they must be able to apply it in practice (as opposed, for example, to university researchers), and this knowledge should be constantly developed so that it can be applied in practice, (ii) admission tends to depend on several credentials (education, practice, demonstration of theoretical and practical knowledge, competence for the performance of the task, ethical requirements/expectations), (iii) the activity is regulated (in a self-regulating manner or by an external institution, interest-representing organisation), only authorised persons are allowed to perform the activity, (iv) the practitioners of the profession have or are expected to have a common set of values, such as honesty, commitment and reliability.

* The papers in this issue contain the views of the authors which are not necessarily the same as the official views of the Magyar Nemzeti Bank.

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The system that makes the skills of these specialists available to society is about to undergo fundamental and irreversible changes. In the long term they will not be needed, or we will not want them to work the way they did in or before the 20th century.

The book consists of three main parts. In the first part, the authors describe those changes affecting professions that can be observed already. The second part maps out the anticipated developments and directions. Finally, the book focuses on assessing what consequences we should anticipate and whether we can counter the undesirable effects.

Past and present

People do not possess all the skills necessary for managing every area of their lives. However, the special knowledge, practice, expertise, skills and know-how provided by professions (how theoretical knowledge can be applied to the needs of the given people, entities, to convert, apply them in a way that addresses the existing problems in an adequate manner) is capable of bridging this problem. Therefore the “grand bargain” was made between members of society and members of professions, which basically meant that the professions are allowed to operate as self-regulatory bodies, and people trust in their practitioners that they are capable of giving them advice and assistance, for example, that in possession of the appropriate qualification and practice physicians can diagnose and treat diseases.

In their current form, professions reflect the needs for the fulfilment of which they were traditionally established. Most of today’s professions developed in the 19th century, in response to the needs of the time, adapted to the requirements current at that time. Practitioners of the professions are not interested in terminating the existing status quo, and from the other side no realistic alternative has been raised so far on how the above needs could be met. Therefore, so far no one has questioned the social contract between professions and the people.

However, during the recent period the world has undergone significant technological development, which has fundamentally changed the way of the generation, search and sharing of information, and this process is still very far from being over. The four main aspects of development are: exponential growth in information technology, increasingly capable machines, increasingly pervasive devices and increasingly connected humans.

Technological development offers new alternatives regarding services provided by practitioners of professions as well. *The “grand bargain” has been questioned.* While in paper-based industrial societies professions played a central role in the spread

of expertise within the society, today professions are not the only way to ensure the spread of expertise to members of the society.

The future

The four common features of the practical knowledge provided by practitioners of professions are the following: i) they are non-rival services (when they are consumed, others will not receive less of them), ii) many of them are available for everyone (those who do not pay for them cannot be excluded from their consumption), iii) they are cumulative (their use and recycling creates new knowledge), iv) they are digitisable (they can be converted into bits suitable for processing by machines). It is the new processes affecting the above features that enable changes to the way expertise is created and spread within society.

In the technology-based Internet society (which is gradually replacing oral, written and ultimately, printed communication, and currently offers the highest level of the conveyance of expertise), expertise is becoming more and more accessible and affordable for those who use and benefit from services provided by professions. On the other side, the work of those who create expertise and provide it to the society is also changing. The state-of-the-art technologies enable the standardisation, automation and simplification of several routine tasks. Going beyond that, machines that are capable of more and more functions, operating in an automated manner or by persons who cannot be considered specialists of a profession, will largely take over those tasks that had previously been the exclusive domain of practitioners of professions. These processes are occurring simultaneously in the short and the medium term.

Professions are about to undergo a transformation, the impact of which will be similar to that of the Industrial Revolution on traditional trades (such as smiths). Certain tasks of professions (physicians, lawyers, journalists, architects, etc.) will be terminated or transformed. If all or most of the tasks of a traditional profession are replaced, then the given profession will disappear. However, if the changes only affect certain partial elements, then we should rather talk about transformation. We can observe several aspects of transformation, such as the reorganisation of the activity or the spread of new employment trends (such as flexible self-employment, involvement of the users).

For example, the work of travel agents or tax consultants will become obsolete in many cases, which gives rise to disintermediation. The online booking websites and tax preparation software force the providers of the services into new roles. That way, the reconsideration of their intermediary activities (for example, concerning tax advisors, a shift from the reporting side in the direction of tax planning) new intermediary models emerge (reintermediation). Typical processes include

decomposition of certain professions and their provision by multiple players (in the form of out-sourcing, multi-sourcing, offshoring, near-shoring, co-sourcing, etc.). As for the design and engineering activities, it is an already existing practice that the activity is divided up into tasks and the individual tasks are allocated to expert groups.

It is the opinion of the authors that professions will not disappear completely. The new machines/systems will not be capable of copying or substituting humans entirely. At the same time, professions that serve machines/systems, such as an assistant, specialised assistant, process analyst, engineer, software architect, will be more appreciated, and entirely new professions may come into existence based on the traditional ones (e.g.: data scientists, professional empathizer who helps in emotional treatment of information produced by machines).

Furthermore, we should anticipate that in the labour market different skills and talents will be needed and become essential. These include, for example, multi-disciplinary thinking, the skills to quickly learn how to apply novel channels of communication (such as social media), or the operation of the new systems that emerge or undergo changes almost on a daily basis.

Consequences

The book also looks into important moral issues. *We have reached a point where society is not only able but also obliged to shape the future.* We must certainly reach social consensus on what are those areas where exclusive reliance on the use of technology is not morally permissible. In the opinion of the authors, decision on human life should be one of these in any case.

Furthermore, humankind cannot avoid thinking about who should possess and control expertise in the future. In the position of the authors, the only obvious aim that we can set is that human beings around the world should have equal direct access to living, help, guidance, learning, and insight that will empower them to live healthier and happier lives.